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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,226	01/23/2002	Shu Yuen Ron Hui	12364.28USU1	6884

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EXAMINER

VU, DAVID HUNG

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/056,226

Applicant(s)

HUI ET AL.

Examiner

David Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 21 is/are allowed.
- 6) ☒ Claim(s) 14,15,17,18 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 16,19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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Part III DETAILED ACTION

Specification

1. Applicant's cooperation is requested in correcting any other errors of which applicant may become aware in the specification, drawings, and claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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3. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Lester et al. U.S. Pat. No. 5,475,284.

Lester et al. disclose the claimed invention including inverter circuit 12, resonance circuit C6,L2, and means R8,R10,C7 for detecting a short circuit or open circuit condition at the lamp, see, for example, figure 4, column 4, column 5, lines 42+, column 8, lines 15+ and 64+.

4. Claims 14, 15, 17 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Paul et al. U.S. Pat. No. 5,677,602 (cited by applicant).

Paul et al. disclose the claimed invention including inverter circuit 105, resonance circuit 600, means 200,500 for detecting a short circuit or open circuit condition at the lamp and for inherently detecting when a dc link current falls below a reference value, a switching frequency of the inverter circuit is variable for regulating power in response to a monitored dc link current, the ignition frequency of the inverter circuit is less than the steady state frequency of the same, see, for example, figures 1-2 and 4, column 5, lines 50+, column 8, lines 65+, column 9, lines 1-26, columns 11-12.

5. Claim 18 is rejected under 35 U.S.C. 102(e) as being anticipated by Ribarich et al. U.S. Pat. No. 6,316,887.

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Ribarich et al. disclose the claimed invention including inverter circuit having transistors IRFP22N50A; resonance circuit including at least the 20nanoF capacitor; means 2 for disabling the ballast if the lamp fails to ignite in a start-up process and for making a further attempt to ignite the lamp after a predetermined interval, see, figure 1, column 3, column 4, lines 1-24, claims 1 and 6.

6. Claims 18,24 are rejected under 35 U.S.C. 102(e) as being anticipated by Trestman et al. U.S. Pat. No. 6,181,076.

Trestman et al. disclose the claimed invention including inverter circuit having a full bridge; resonance circuit T3,C5; means (overvoltage protection circuit and ZVS Phase Shift Controller) for disabling the ballast if the lamp fails to ignite in a start-up process and for making a further attempt to ignite the lamp after a predetermined interval, see, the figure, columns 4- 5. At least column 4, lines 56 discloses the ignition frequency of the inverter circuit is less than the steady state frequency of the same.

7. Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Maheshwari et al. U.S. Pat. No. 5,932,976.

Maheshwari et al. disclose the claimed invention including inverter circuit having transistors 58,60; resonance circuit

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50,52 ; means 68 for disabling the ballast if the lamp fails to ignite in a start-up process and for making a further attempt to ignite the lamp after a predetermined interval, see, for example; figure 7a, column 8, lines 15+.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamashita et al, U.S. Pat. No. 6,002,215 in view of Paul et al.

Yamashita et al essentially disclose the claimed invention including inverter circuit 3 and means 4,5,39 for

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detecting a short circuit or open circuit condition at the lamp (figure 1). Yamashita et al fail to explicitly disclose a resonance circuit. Paul et al disclose resonance circuit 600 (figures 2 and 4) in an HID ballast. An obvious modification would have provided the Yamashita et al. reference with the resonance circuit as taught by Paul et al. It would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have provided the Yamashita et al. reference with the resonance circuit so as to provide a resonance voltage to the lamp.

Allowable Subject Matter

10. Claims 16 and 19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 1-13 and 21 are allowed.

12. The following is an examiner's statement of reasons for allowance: the prior art does not teach or disclose a high intensity discharge lamp ballast having a combination of an inverter circuit and a resonance circuit wherein at least one

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ignition capacitor is provided between the resonance circuit and HID lamp.

Response to Arguments

13. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant now specifically claims a high intensity discharge lamp which necessitated the new ground(s) of rejection.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire

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on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (703) 305-6077.

16. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

17. Papers related to Technology Center 2800 applications **only** may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 872-9306.

dv

November 30, 2003

A handwritten signature in black ink, appearing to read 'David Vu', with a stylized, flowing script.

DAVID VU
PRIMARY EXAMINER